



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------------|------------------|
| 10/648,540 | 08/26/2003 | Jiawen Dong | 134717-1 | 4671 |
| 23413 | 7590 | 03/09/2007 | | |
| CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 | | | EXAMINER HUSON, MONICA ANNE | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1732 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 03/09/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/648,540

Applicant(s)

DONG ET AL.

Examiner

Monica A. Huson

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the paper filed 12 December 2006.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 15-16, 18-21, 24, 31, and 32 are rejected under 35 USC 103(a) as being unpatentable over Rosato's Injection Molding Handbook (3rd ed), in view of Davis et al. (U.S. Patent Application Publication 2002/0048691), further in view of Toshihiko et al. (JP 10-306268). Regarding Claim 1, Rosato shows that it is known to carry out a method of molding an article, comprising injection molding a polymeric material at a melt temperature of about 330 to 370°C (Table 4-8, PEEK) into a mold having a mold temperature of about 90 to about 130°C (Table 4-8, PEEK; It is being interpreted that 160°C meets "about 130°C".) and a clamp tonnage of about 12 to about 35 tons to form the article (Page 77-78, Kurto/John Manufacturer). Rosato does not specifically show using his specific clamp tonnage in combination with the melt and mold temperature parameters. However, it is believed that one of ordinary skill in the art would recognize clamp tonnage as a result-effective variable. Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to choose a clamp tonnage such as Rosato discloses with his other process parameters as part of routine experimentation in order to fine tune a molding process. See MPEP 2144.05 (II)(B). Rosato does not show a specific radial tilt change. Davis et al., hereafter "Davis," show that

it is known to carry out a method wherein an injection molded radial disk exhibits a radial tilt change of less than or equal to 0.35 (Para. 0031, 0057, 0058). Davis and Rosato are combinable because they are concerned with a similar technical field, namely that of methods of injection molding methods. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Davis' radial tilt change as a parameter met by Rosato's injection molding method in order to satisfy exclusive customer specifications. Rosato does not show specific conditions under which radial tilt is measured. Toshihiko et al., hereafter "Toshihiko," show that it is known to carry out a method wherein radial tilt is measured after 96 hours at 80C (Para. 0008). Toshihiko and Rosato are combinable because they are concerned with a similar technical field, namely that of methods of injection molding. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Toshihiko's radial tilt measuring parameters during Rosato's molding method in order to insure that the radial tilt measurements are consistent with those required by customer specifications.

Regarding Claim 3, Rosato shows the process as claimed as discussed above in the rejection of claim 1 above, but he does not show a specific radial tilt change. Davis show that it is known to carry out a method wherein an injection molded radial disk exhibits a radial tilt change of less than or equal to 0.3 (Para. 0031, 0057, 0058). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to choose 0.15 as a desired radial tilt value based on Davis' radial tilt change teachings during Rosato's injection molding method in order to satisfy exclusive customer specifications. Rosato does not show specific conditions under which radial tilt is measured. Toshihiko show that it is known to carry out a method wherein radial tilt is measured after 96 hours at 80C (Para. 0008). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention

was made to use Toshihiko's radial tilt measuring parameters during Rosato's molding method in order to insure that the radial tilt measurements are consistent with those required by customer specifications.

Regarding Claim 4, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the melt temperature is of about 340 to about 360°C (Figure 4-8), meeting applicant's claim.

Regarding Claim 5, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the mold temperature is of about 100 to about 120°C (Figure 4-8), meeting applicant's claim.

Regarding Claim 6, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein the clamp tonnage is of about 15 to about 30 tons (Page 77-78), meeting applicant's claim.

Regarding Claim 15, Rosato shows the process as claimed as discussed above in the rejection of claim 1 above, but he does not specifically show a data storage disk. Davis shows that it is known to carry out a method of making a data storage disk (Para. 0002). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to make Davis' data storage disk during Rosato's injection molding process in order to take advantage of the wide applications of injection molding technology.

Regarding Claim 16, Rosato shows the process as claimed as discussed above in the rejection of claim 1 above, but he does not specifically show a data storage disk. Davis shows that it is known to carry out a method of making a laminated data storage assembly (Para. 0002). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to make Davis' laminated data storage assembly during Rosato's injection molding process in order to take advantage of the wide applications of injection molding technology.

Regarding Claim 18, Rosato shows that it is known to carry out a method of molding an article comprising injection molding a polymeric material to form articles according to a molding model comprising molding parameters and molding parameter values (Page 78, 179, 180, , 260, 261). He does not show a radial tilt change. Davis show that it is known to carry out a method wherein an injection molded radial disk exhibits a radial tilt change of less than or equal to 0.35 (Para. 0031, 0057, 0058). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Davis' radial tilt change as a parameter met by Rosato's injection molding method in order to satisfy exclusive customer specifications. Rosato does not give specific testing processes. Toshihiko shows that it is known to carry out a method including testing disk assemblies fabricated from the disks for radial tilt change, creating an updated molding model based on the molding parameter values that resulted in disk assemblies fabricated from the disks having a radial tilt change within a selected range of values; and repeating the molding, testing, and creating steps to form final disks and a final molding model (Para 0008; It is noted that Toshihiko's "repeated research" would comprise the claimed steps.). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Toshihiko's radial tilt change testing during Rosato's molding process in order to accurately form an article that must meet strict end-use specifications.

Regarding Claim 19, Rosato shows the process as claimed as discussed above in the rejection of claim 18 above, but he des not show specific conditions under which radial tilt is measured. Toshihiko show that it is known to carry out a method wherein radial tilt is measured after 96 hours at 80C (Para. 0008). It would have been prima facie obvious to one of ordinary

skill in the art at the time the invention was made to use Toshihiko's radial tilt measuring parameters during Rosato's molding method in order to insure that the radial tilt measurements are consistent with those required by customer specifications.

Regarding Claim 20, Rosato shows the process as claimed as discussed above in the rejection of claim 18 above, but he does not show a specific radial tilt change. Davis show that it is known to carry out a method wherein an injection molded radial disk exhibits a radial tilt change of less than or equal to 0.35 (Para. 0031, 0057, 0058). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Davis' radial tilt change as a parameter met by Rosato's injection molding method in order to satisfy exclusive customer specifications. Rosato does not show specific conditions under which radial tilt is measured. Toshihiko show that it is known to carry out a method wherein radial tilt is measured after 96 hours at 80C (Para. 0008). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Toshihiko's radial tilt measuring parameters during Rosato's molding method in order to insure that the radial tilt measurements are consistent with those required by customer specifications.

Regarding Claim 21, Rosato shows the process as claimed as discussed above in the rejection of claim 18 above, but he does not show a specific radial tilt change. Davis show that it is known to carry out a method wherein an injection molded radial disk exhibits a radial tilt change of less than or equal to 0.35 (Para. 0031, 0057, 0058). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Davis' radial tilt change as a parameter met by Rosato's injection molding method in order to satisfy exclusive customer specifications. Rosato does not show specific conditions under which radial tilt is measured. Toshihiko show that it is known to carry out a method wherein radial tilt is measured after 96 hours

at 80C (Para. 0008). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Toshihiko's radial tilt measuring parameters during Rosato's molding method in order to insure that the radial tilt measurements are consistent with those required by customer specifications.

Regarding Claim 24, Rosato shows the process as claimed as discussed in the rejection of Claim 18 above, including a method wherein the molding parameters are melt temperature, mold temperature, clamp tonnage, hold pressure, cool time (Pages 60, 78, 179, 180, 260, 261, 283), meeting applicant's claim.

Regarding Claim 31, Rosato shows the process as claimed as discussed above in the rejection of claim 18 above, but he does not specifically show a data storage disk. Davis shows that it is known to carry out a method of making a data storage disk (Para. 0002). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to make Davis' data storage disk during Rosato's injection molding process in order to take advantage of the wide applications of injection molding technology.

Regarding Claim 32, Rosato shows the process as claimed as discussed above in the rejection of claim 18 above, but he does not specifically show a data storage disk. Davis shows that it is known to carry out a method of making a laminated data storage assembly (Para. 0002). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to make Davis' laminated data storage assembly during Rosato's injection molding process in order to take advantage of the wide applications of injection molding technology.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, and Toshihiko, further in view of Dhar et al. (U.S. Patent 6,221,536).

Regarding Claim 7, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show specific percent feature replication. Dhar et al., hereafter "Dhar," show that it is known to carry out a method wherein the disk exhibits a percent feature replication of greater than or equal to about 90 percent (Column 14, lines 1-4). Dhar and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow Dhar's feature replication percentage as a result of Rosato's molding process in order to make a valuable product that accurately represents features from the mold surface.

Regarding Claim 8, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show specific percent feature replication. Dhar shows that it is known to carry out a method wherein the disk exhibits a percent feature replication of greater than or equal to about 95 percent (Column 14, lines 1-4). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow Dhar's feature replication percentage as a result of Rosato's molding process in order to make a valuable product that accurately represents features from the mold surface.

Claims 9, 10, and 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, and Toshihiko, in view of Adedeji et al. (US PGPub 2002/0137840).

Regarding Claim 9, Rosato shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show using a specific polymer.

Art Unit: 1732

Adedji et al., hereafter "Adedji," show that it is known to carry out a method wherein the polymeric material comprises polyarylene ether and polyalkenyl aromatic (Abstract). Adedji and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Adedji's specific polymer in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Regarding Claim 10, Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not show using a specific polymeric structure. Adedji shows that it is known to carry out a method wherein the polyarylene ether comprises the claimed structure (see claim listing) (Paragraphs 0015-0016). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Adedji's specific polymeric structure in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Regarding Claim 14, Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not show a specific molding composition. Adedji shows that it is known to carry out a method wherein the polyarylene ether is present in the polymeric material in an amount of about 40 percent by weight and the polyalkenyl aromatic is present in the polymeric material in amount of about 60 percent by weight based on the total weight of the polyarylene ether and the polyalkenyl aromatic (Para 0014). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Adedji's specific polymer in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, Toshihiko, and Singh, further in view of Fortuyn et al. (U.S. Patent 6,306,953). Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not show using a polymer with a specific viscosity. Fortuyn et al., hereafter "Fortuyn," show that it is known to carry out a method wherein the polyarylene ether has an intrinsic viscosity of about 0.10 to about 0.60 deciliters per gram as measured in chloroform at 25°C (Column 2, lines 41-43). Fortuyn and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use a material with Fortuyn's viscosity in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, Toshihiko, and Singh, further in view of Allen (U.S. Patent 4,727,093). Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not show a specific polyalkenyl aromatic. Allen shows that it is known to carry out a process wherein the polyalkenyl aromatic contains at least 25% by weight of the claimed structural units (see claim listing) (Column 4, lines 3-23). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Allen's specific polymeric structure in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, Toshihiko, and Singh, further in view of Cheung et al. (U.S.

Patent 5,872,201). Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not show a specific polyalkenyl aromatic. Cheung et al., hereafter "Cheung," show that it is known to carry out a method wherein the polyalkenyl aromatic is atactic crystal polystyrene (Column 7, lines 37-38). Cheung and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Cheung's specific polymer in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, and Toshihiko, further in view of Karasz et al. (U.S. Patent 5,286,812). Rosato shows that it is known to carry out a method of molding an article, comprising injection molding a polymeric material at a melt temperature of about 330 to 370°C (Table 4-8) into a mold having a mold temperature of about 90 to about 130°C (Table 4-8) and a clamp tonnage of about 12 to about 35 tons to form the article (Page 77-78). Rosato does not show a specific molding material. Karasz et al., hereafter "Karasz," show that it is known to carry out a method wherein the polymeric material comprises poly(2,6-dimethyl-1,4-phenylene oxide) and polystyrene (Column 1, lines 59-65). Karasz and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Karasz's specific material in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain material.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, and Toshihiko, further in view of Ohkawa et al. (U.S. Patent 5,525,645). Rosato shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not show testing the articles for percent feature replication. Ohkawa et al., hereafter "Ohkawa," show that it is known to carry out a method comprising testing the disks for percent feature replication; creating an updated molding model based on the mold parameter values that resulted in disks exhibiting a percent feature replication within a selected range of values; and repeating the molding, testing, and creating steps until the final disks exhibit a percent feature replication of greater than or equal to about 90 percent (Column 12, lines 66-67; Column 13, lines 1-11, 45-67; Column 14, lines 1-2). Ohkawa and Rosato are combinable because they are concerned with a similar technical field, namely, methods of molding polymeric articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow Ohkawa's testing procedures with Rosato's molding process in order to insure the quality of the molded articles.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, Toshihiko, and Ohkawa, further in view of Dhar. Rosato shows the process as claimed as discussed in the rejection of Claim 22 above, but he does not show specific percent feature replication. Dhar shows that it is known to carry out a method wherein the disk exhibits a percent feature replication of greater than or equal to about 95 percent (Column 14, lines 1-4). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow Dhar's feature replication percentage as a result of Rosato's molding process in order to make a valuable product that accurately represents features from the mold surface.

Claims 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, and Toshihiko, further in view of Singh.

Regarding Claims 25 and 26, Rosato shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not show using a specific polymer. Singh shows that it is known to carry out a method wherein the polymeric material comprises polyarylene ether (Column 3, lines 5-6). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Singh's specific polymer in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Regarding Claim 27, Rosato shows the process as claimed as discussed in the rejection of Claim 26 above, but he does not show using a specific polymeric structure. Singh shows that it is known to carry out a method wherein the polyarylene ether comprises the claimed structure (see claim listing) (Column 3, lines 5-27). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Singh's specific polymeric structure in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, Toshihiko, and Singh, further in view of Fortuyn. Rosato shows the process as claimed as discussed in the rejection of Claim 26 above, but he does not show using a polymer with a specific viscosity. Fortuyn shows that it is known to carry out a method wherein the polyarylene ether has an intrinsic viscosity of about 0.10 to about 0.60 deciliters per gram as measured in chloroform at 25°C (Column 2, lines 41-43). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use a material with Fortuyn's viscosity in Rosato's molding process in order to

obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, Toshihiko, and Singh, further in view of Allen. Rosato shows the process as claimed as discussed in the rejection of Claim 26 above, but he does not show a specific polyalkenyl aromatic. Allen shows that it is known to carry out a process wherein the polyalkenyl aromatic contains at least 25% by weight of the claimed structural units (see claim listing) (Column 4, lines 3-23). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Allen's specific polymeric structure in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato, Davis, Toshihiko, and Singh, further in view of Adedeji. Rosato shows the process as claimed as discussed in the rejection of Claim 9 above, but he does not show a specific molding composition. Adedeji shows that it is known to carry out a method wherein the polyarylene ether is present in the polymeric material in an amount of about 40 percent by weight and the polyalkenyl aromatic is present in the polymeric material in amount of about 60 percent by weight based on the total weight of the polyarylene ether and the polyalkenyl aromatic (Para 0014). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Adedeji's specific polymer in Rosato's molding process in order to obtain an article that meets exclusive end-use specifications characteristic of the certain polymer.

Response to Arguments

Applicant's arguments filed 12 December 2006 have been fully considered but they are not persuasive.

Applicant contends that Rosato does not suggest the claimed invention because his temperature is higher than the claimed temperature. This is not persuasive because the claim only requires "about 130 degrees". Even in the context of plastics processing, the examiner maintains that a temperature of 160 degrees would conceivably meet the requirements of a process only required to be maintained at "about 130 degrees". There is no evidence that would necessarily preclude the feasibility of Rosato's temperature within disk processing methods.

Applicant contends that Rosato does not suggest the claimed invention because he does not give any suggestion on how to combine clamp tonnage with melt/mold temperature. This is not persuasive because, as is stated in the rejection, these parameters are widely-recognized result-effective variables. Depending on the particular article characteristics that are being sought, one of ordinary skill in the art would easily experiment with the parameters (claimed values suggested by Rosato) to come up with the optimal processing conditions. As applicant has noted, Rosato clearly states that the melt/mold temperature depends on the plastic being molded, and that the molding parameters can affect the properties of the molded article (see Response, page 10, second paragraph). It is noted that applicant has not necessarily claimed how the values are related or combined (i.e. applicant has only claimed a list of properties with associated ranges). It is maintained that, guided by the parameters and general ranges given by Rosato, one of ordinary skill in the art would, after experimentation, arrive at the claimed conditions given the particular product qualities desired.

Applicant contends that Davis does not show the claimed invention because he does not show the conditions under which the radial tilt is

Art Unit: 1732

measured. This is not persuasive because Davis was not cited to teach these limitations. With regard to the limitation of "measured at a radius of 55 mm", see the paper mailed 19 October 2005 for treatment of this limitation: "It is noted that the phrase 'measured at a radius of 55 millimeters' is seen as only indicating the radius of the disk, which does not have a manipulative effect on the stepwise limitations of the method claim". This interpretation was not argued by applicant.

Applicant contends that Toshihiko does not show the claimed invention because he does not show the specific radial tilt change value. This is not persuasive because Toshihiko was not cited to teach this limitation; Toshihiko was only cited to show conditions for measuring. With regard to the limitation of "measured at a radius of 55 mm", see the paper mailed 19 October 2005 for treatment of this limitation: "It is noted that the phrase 'measured at a radius of 55 millimeters' is seen as only indicating the radius of the disk, which does not have a manipulative effect on the stepwise limitations of the method claim". This interpretation was not argued by applicant. Further, in response to applicant's contention that Toshihiko has nothing to do with injection molding, applicant is directed to paragraph 0004 of Toshihiko's disclosure which discusses injection molding processes.

Applicant contends that Dhar does not show the claimed invention because he does not show molding parameters which are claimed. This is not persuasive because Dhar was not cited to show this limitation.

With regard to Adedeji, Singh, Fortuyn, Allen, Cheung, Karasz, and Ohkawa, applicant contends that these references, in their relative combinations, do not suggest the claimed invention because they do not cure the alleged deficiencies of Rosato, Davis, and Toshihiko. This is not persuasive for the reasons discussed above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

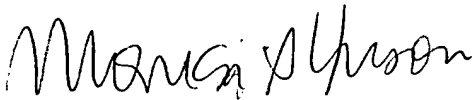
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Monica A Huson

March 5, 2007



CHRISTINA JOHNSON
SUPERVISORY PATENT EXAMINER
3/5/07